

NORTH-EASTERN BOUNDARY.

CORRESPONDENCE respecting the operations of the COMMISSION for running and tracing the BOUNDARY LINE between Her Majesty's Possessions in North America and the United States, under the Sixth Article of the Treaty signed at Washington, August 9, 1842.

With Map annexed showing the Country in which the operations have been carried on.

Presented to the House of Commons by Her Majesty's Command. 1845.

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CORRESPONDENCE

RESPECTING THE

OPERATIONS OF THE COMMISSION

FOR

RUNNING AND TRACING

THE BOUNDARY LINE

BETWEEN

HER MAJESTY'S POSSESSIONS IN NORTH
AMERICA AND THE UNITED STATES,

UNDER THE

VIth Article of the Treaty signed at Washington,
August 9, 1842.

With Map annexed showing the Country in which the
operations have been carried on.

Presented to the House of Commons by Command of Her Majesty.
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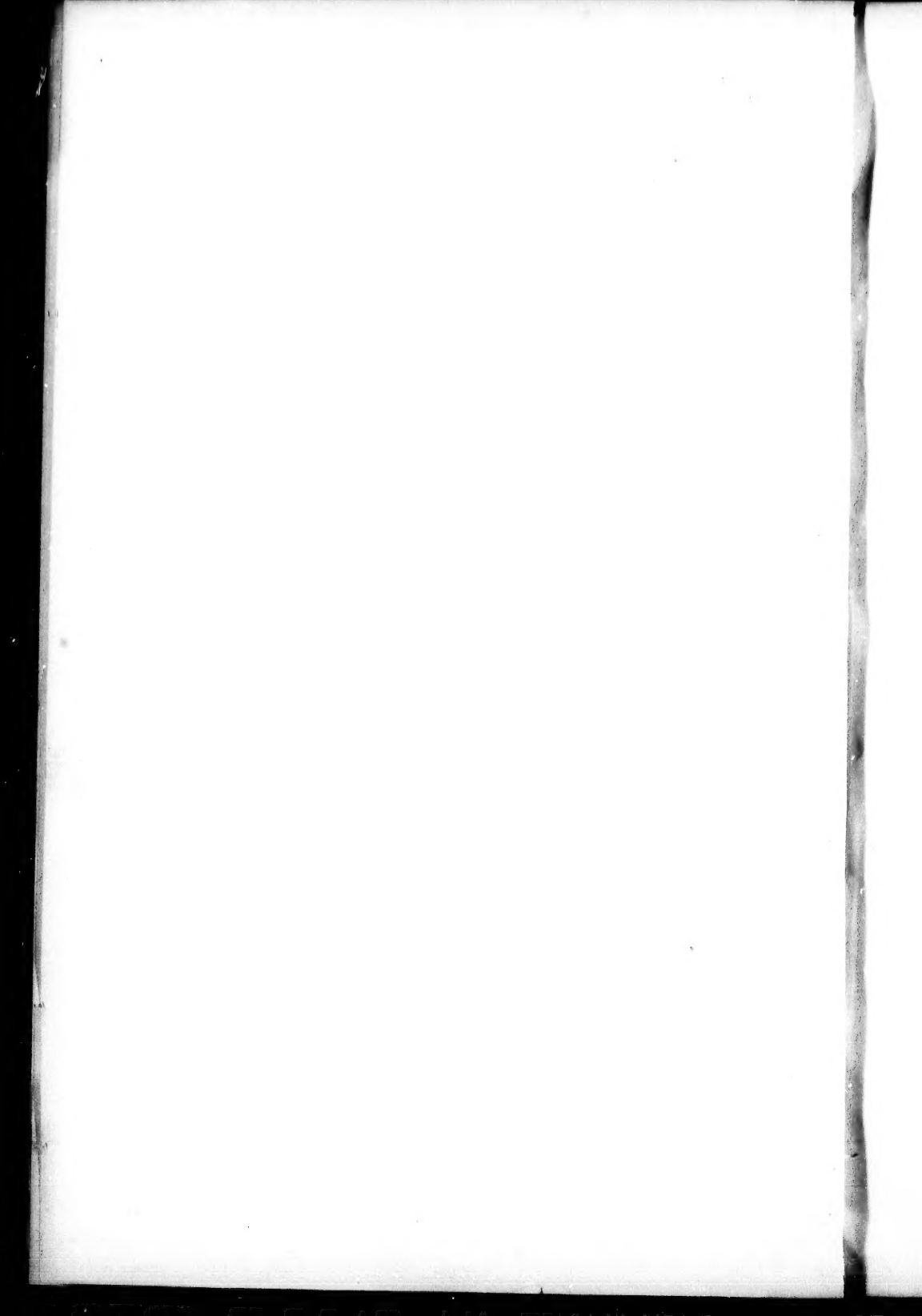


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Correspondence respecting the operations of the Commission for running and tracing the Boundary Line between Her Majesty's Possessions in North America and the United States, under the Sixth Article of the Treaty signed at Washington, August 9, 1842.

No. 1.

The Earl of Aberdeen to Lieutenant-Colonel Bucknall Estcourt.

Sir,

Foreign Office, March 31, 1843.

I TRANSMIT to you a commission which the Queen has been graciously pleased to grant to you under the royal signet and sign manual, constituting and appointing you the Commissioner on the part of Her Majesty, to meet a Commissioner to be appointed by the President of the United States, and with such Commissioner to run and trace those parts of the Boundary Line between the British possessions in North America and the United States, described in the First Article of the Treaty of the 9th of August, 1842, which will be required to be run and ascertained, and to mark the said line by proper monuments on the land.

I am, &c.,

(Signed) ABERDEEN.

No. 2.

The Earl of Aberdeen to Lieutenant-Colonel Estcourt.

Sir,

Foreign Office, March 31, 1843.

AS you are about to proceed to the United States in order to undertake the important duties confided to you as Her Majesty's Commissioner for tracing, in conjunction with the Commissioner of the United States, the Line of Boundary between Her Majesty's dominions in North America and the United States, as provided by the Treaty of Washington of the 9th August, 1842, the time is arrived at which it is right that I should give you such instructions as may be necessary for your guidance in the proper discharge of those duties.

You will, in the first place, proceed to Boston, accompanied by Mr. James Featherstonhaugh, one of the surveyors, and Mr. Scott, the secretary and draughtsman attached to your Commission, leaving Captain Broughton and Robinson, and Lieutenant Pipon to follow you by the mail packet of the 18th April. Those officers, accompanied by as many of the Sappers who are attached to the Commission as may be thought necessary, should be directed, after their arrival at Halifax or at Boston, as may be deemed expedient, to wait the receipt of instructions from you for their guidance in their ulterior proceedings.

You will probably find it convenient again to make use of the build-

ing at the Great Falls of the River St. John, which was employed by the late Commission of Survey as a depôt for storing their instruments, &c. In case you should decide on applying that building once more to this use, you will give the requisite orders for preparing it accordingly.

After your arrival at Boston, you will repair without unnecessary delay to Bangor, in the State of Maine, the place of meeting appointed by the Treaty, where you will put yourself into communication with the United States' Commissioner as soon as he arrives there. The 1st of May is the day of meeting appointed by the Treaty, but, if both the Commissioners reach Bangor before that time, there is no reason why they should not enter at once into a preliminary discussion of the objects to be undertaken by them.

At your first interview with the United States' Commissioner, after having mutually produced and verified the powers under which you respectively act, you will at once declare to him that it is the earnest desire of Her Majesty's Government that the Commissioners of the two Governments should on all occasions act together with the utmost harmony and cordiality, and that you have accordingly been instructed to meet the United States' Commissioner in a spirit of perfect fairness and openness, and to seek by every proper means in your power to remove difficulties and facilitate the progress of the operations committed to your care.

The great object which Her Majesty's Government have at heart is to accelerate as much as possible the completion of the Line of Boundary as laid down in the First Article of the Treaty of Washington. They are satisfied that by good will and activity on both sides the greater part, if not the whole, of that Line may be so far *scientifically* completed in one season as to enable Her Majesty's Government to dispense with the further services of several of the gentlemen of science employed on the task, especially on the astronomical portions of it, leaving the remainder of the work to be finished in the succeeding season.

With this object, and under this confident expectation alone, Her Majesty's Government have been induced to incur the great expense of sending out so strong and well appointed a Commission as that of which you are the head.

You will urge this point earnestly upon your American colleague, and omit no efforts to induce him to unite his endeavours with yours in pushing on the joint work with the greatest practicable celerity.

With the view of attaining greater rapidity of action by narrowing the sphere of preliminary discussion and arrangement between the Commissioners, Her Majesty's Government thought it advisable recently to instruct Her Majesty's Minister at Washington to state to the Government of the United States that the British Commissioner would be instructed to suggest to the Commissioner of the United States the expediency of entering on and prosecuting their joint operations precisely in the successive order laid down in the Treaty of Washington, reserving, however, to themselves the power of ordering the execution of those operations to be carried on at several points of the Line at once.

This scheme, although not imperative on the two Governments, or their Commissioners, still appears to Her Majesty's Government to offer the fairest chance of a steady and rapid prosecution of the work, and you will accordingly, at your first conference with the United States' Commissioner, propose it as a general plan of proceeding.

If, however, on further consideration on the spot, and after having discussed the matter with the United States' Commissioner, you should see good reason to prefer some other scheme of proceeding, you will not consider yourself bound to insist upon, or adhere to, the above plan.

In case your suggestion is acquiesced in by the United States' Commissioner, you will propose that, after agreeing upon the general line and mode of operations to be undertaken, both the Commissioners should proceed at once to the first point mentioned in the Treaty, namely, the monument at the source of the River St. Croix; that they should there give all necessary directions for tracing the Boundary Line between that point and the point of intersection of the North Line, as laid down in 1817—18,

with the River St. John; and that, having set a sufficiency of hands on that part of the Boundary to complete it, the Commissioners themselves should then repair to the said point of intersection at the River St. John, and proceed without delay to trace the Line of Boundary along that river and the River St. Francis.

While this part of the work is in progress, parties of British and American surveyors, attended by their assistants, might, either jointly or separately, be detached, first, to the point at the outlet of the Lake called in the Treaty Pohenagamook, in order to fix its position astronomically; secondly, to the point on the north-west branch of the St. John, described in the Treaty as ten miles distant from the main River St. John. Thirdly, surveyors might be directed also to examine the country between the point on the north-west branch of the St. John and the main river, with a view to acquire a certain knowledge of the direction in which the ten-mile straight line would be carried from one river to the other. Fourthly, a party might, at the same time, be sent to explore with accuracy the district lying between the point on the north-west branch of the St. John and the highlands designated in the Treaty, in order to ascertain in an authentic manner the distance between that point and the crest of those highlands, so as to enable the Commissioners, on their arrival at that part of the Boundary, to order at once, on the knowledge thus acquired, that the various points described in the Treaty should be authoritatively established, and the Line of Boundary drawn from the one to the other.

The same process might be adopted with equal utility with respect to the parallel of $46^{\circ} 25'$ north latitude on the south-west branch of the St. John, and the straight line to that point from the point on the north-west branch; as also to the remainder of the Line of Boundary as far as the Metjarmette Portage.

By such a scheme of separate and simultaneous action, executed to as great an extent as our surveying force would admit, much time would be gained; and all the scientific and essential parts of the work might very possibly, as I have above hinted, be completed in one season.

You cannot, therefore, too strongly and earnestly press the expediency and advantage of such a plan on the consideration of the United States' Commissioner.

Having thus sketched out a general outline of the mode of proceeding which Her Majesty's Government consider best calculated to insure the rapid completion of the whole work, I proceed to give you instructions on the details of that work.

In order the more clearly to present to your view the manner in which Her Majesty's Government conceive and desire that your operations should be conducted, I shall divide into five sections the various portions of the Line of Boundary to be traced, in the successive order in which they are described in the Treaty of Washington.

1. The first section will include the north line from the monument at the source of the St. Croix to its point of intersection with the River St. John.

2. The second section will include the line along the Rivers St. John and St. Francis to the outlet of the Lake Pohenagamook.

3. The third section will include the line from the outlet of the Lake Pohenagamook to the north-west branch of the River St. John.

4. The fourth section will include the line from the north-west branch of the St. John to the south-west branch of the same river; and thence to the intersection of the 45th parallel of north latitude with the River Connecticut.

5. The fifth section will include the line along the last-mentioned parallel of latitude, as hitherto received and understood, to the St. Lawrence.

1. With regard to the first section, or north line from the monument at the source of the River St. Croix to the intersection of that line with the River St. John, the Treaty provides that that part of the Line of Boundary shall be traced as follows:—

"Beginning at the monument at the source of the River St. Croix, as designated and agreed to by the Commissioners under the 5th Article of the Treaty of 1794 between the Governments of Great Britain and the United States; thence north, following the exploring line run and marked by the surveyors of the two Governments in the years 1817 and 1818, under the Fifth Article of the Treaty of Ghent, to its intersection with the River St. John, and to the middle of the channel thereof."

Her Majesty's Government do not apprehend that this part of the Line of Boundary will meet with much difficulty in the execution. Many parts of the Line, as marked in 1817, 1818, are, it is believed, perfectly well known, and traceable without trouble; and although in some parts the posts, or other marks which were placed by the Commissioners at that time along the exploring line surveyed by them, may have been partially removed, or effaced, or overgrown, yet it is believed that a sufficient knowledge of the line which they designated may be readily attained.

The grants of lands made of late years by the Government of Maine to its citizens along that assumed frontier, and which were based on the received line in question, will much tend to elucidate its general direction. And the settlements made also on the British side of the same line by the inhabitants of New Brunswick will equally facilitate the acquirement of the desired knowledge.

You will make every effort to ascertain with as much accuracy as may be attainable, the exact direction of the old line explored and marked out by the joint Commissioners in 1817, 1818; and having satisfied yourself of the general correctness of the information which you may have collected, it will be requisite that, in conjunction with the United States' Commissioner, you should give orders for running and marking out the same line afresh in such manner as you shall jointly deem expedient.

The monument at the source of the St. Croix being a point already established, it will not be necessary, in the first instance, to determine afresh its precise astronomical position. That operation, if required at all, may at all events be reserved until the return of the surveyors from tracing the western parts of the Boundary Line.

The point of intersection of the north line, as assumed by the Treaty, with the River St. John, should be at once accurately ascertained and laid down. But, as it is obvious that no mark denoting the point of intersection can be conveniently placed in the middle of the river, it will be necessary that two corresponding marks should be placed to designate that point, the one on the right and the other on the left bank of the river.

2. I now proceed to the second section above enumerated, namely, that part of the Line of Boundary from the above-named point of intersection to the outlet of the lake called in the Treaty Pohenagamook.

The Treaty provides that this part of the Boundary shall be laid down as follows:

"Thence" (*i. e.*, from the point of intersection of the north line with the St. John's) "up the middle of the main channel of the River St. John to the mouth of the River St. Francis; thence, up the middle of the channel of the River St. Francis, and of the lakes through which it flows, to the outlet of the Lake Pohenagamook."

The main channel of a river is, necessarily, that channel through which the main body of its waters flows. This channel will, it is presumed, be generally ascertainable without much difficulty in most parts of the River St. John. Where, however, it is not clearly discernible, or where there are two or more channels, divided by islands, of nearly equal volume, the selection must be made, and the point determined, between the Commissioners by mutual agreement, and on the grounds of fair compromise.

Along the whole of the channel so determined the Line of Boundary must be traced and laid down in the maps which will be prepared according to the provision of Article VI of the Treaty of Washington.

It is of less consequence that this line should be run with punctilious

nicety, since, wherever it is required, the Treaty provides (Article II) that the navigation of the river shall be free and open to both parties. This provision, it is hoped, will tend greatly to facilitate the arrangements of the Commissioners with respect to this part of the Line of Boundary, and to remove any difficulties which may arise.

The same principle of adjustment which is applied to the River St. John should be of course equally applied to the River St. Francis, since, although the word "main," as applied to the channel, is omitted in the Treaty in speaking of that river, it is obvious that its omission was merely accidental, and that the same principle of delimitation which was provided in respect to the St. John was equally intended with respect to the St. Francis.

The apportionment of the islands lying in the bed of the two rivers may possibly be here and there subject to some little difficulty, where the main channel of either river is a matter of question.

Where the main channel is plainly discernible, the islands lying to the right of the line drawn along it, in descending either river, will of course, as a general principle, belong of right to the United States, while those lying to the left will belong to Great Britain.

Cases, however, may occur, in which it may be for the interest of both parties that this point of right should be waived by mutual agreement, and a principle of reciprocal accommodation be substituted for it.

In a despatch addressed by Lord Ashburton to this office, after the signature of the Treaty of Washington, in August, 1842, it is stated "that it was fully understood between the negotiators, that the question of the distribution of the islands should be dealt with equitably and with the least possible contention, consulting, where it can be done, the interests of the inhabitants, with whose farms the islands, which are not generally large, may be connected."

By these principles the Commissioners should be guided; and there can be little doubt that, by a candid and liberal observance of them on both sides, all difficulties which may arise in the adjustment of this part of the Boundary will be speedily removed.

Wherever the point of the main channel of either the River St. John or the River St. Francis is doubtful, the same scheme of mutual agreement and accommodation, which has been above recommended for the determination of the Boundary Line, in such an event, must be adopted with regard to the distribution of the islands.

By these principles, therefore, you will regulate your conduct in both cases. But if, contrary to our hopes and expectation, you should find the Commissioner of the United States indisposed to act on those principles, you will insist on an adherence to the strict principle of right on both sides, by which, wherever the main channel of either river is plainly discernible, all islands lying on one side of the centre of that channel should be adjudged to Great Britain, and all on the other side to the United States; reserving, for reference to your Government, all cases of doubt which cannot be amicably adjusted between the Commissioners themselves.

It is highly desirable that such cases should not be allowed to delay or interfere with the prosecution of your labours in other parts of the work intrusted to you.

There is good reason for supposing that the lake designated in the Treaty as the Lake Pohenagamook, does not in reality bear that name; but a lake nearer the mouth of the St. Francis seems to be known by a somewhat similar appellation.

The lake, however, intended by the Treaty, is so clearly laid down in the map of the United States' Surveyors, Renwick, Graham, and Tallcot, which was before the negotiators at the time of signature, and on which they caused the Line of Boundary intended by them to be generally traced, that no mistake can well occur on that point.

That map, although not to be taken as an authentic deed or document officially annexed to the Treaty, must nevertheless be considered as indicating generally the intentions of the negotiators; and may always be appealed to by you as a *general* evidence of those intentions.

By consulting the copy of it which is hereto annexed you will at once perceive the position of the lake intended by the negotiators of the Treaty.

For your further information on this point I inclose a copy of a report and map submitted to the Lieutenant-Governor of New Brunswick by Mr. Wilkinson, who surveyed, in the course of last autumn, that part of the Line of Boundary described in the Treaty of Washington, and who confirms the opinion above expressed with regard to the lake intended by the negotiators of the Treaty.

3. I now come to the third section above enumerated, namely, that part of the Line of Boundary from Lake Pohenagamook to the point on the north-west branch of the River St. John.

The Treaty provides that this part of the Boundary shall be laid down as follows:—

“Thence,” (*i. e.* from the outlet of the Lake Pohenagamook) “south-westerly, in a straight line, to a point on the north-western branch of the River St. John, which point shall be ten miles distant from the main branch of the St. John, in a straight line, and in the nearest direction: but if the said point shall be found to be less than seven miles from the nearest point of the summit or crest of the highlands that divide those rivers which empty themselves into the St. Lawrence from those which fall into the St. John then the said point shall be made to recede down the said north-west branch of the River St. John, to a point seven miles in a straight line from the said summit or crest.”

This is an essential part of the Boundary, to which much attention must be paid by you. The practical determination and delineation of it will probably be attended with difficulty and labour.

Fortunately, it seems to have been already pretty clearly ascertained, that from the main River St. John to the point on the north-west branch of the St. John, and thence to the crest of the dividing highlands, there will be found a considerably greater distance than the ten and seven miles required; consequently, we may hope that in this point, at least, the difficulty of demarcation will be materially lessened.

The governing principle of this part of the Line, to the full carrying out of which we must look, is, that the point to be established on the north-west branch of the St. John be at least seven miles from the nearest point of the summit or crest of the dividing highlands.

In proceeding to mark out this part of the Boundary the Commissioners will have, first, to settle which is the river intended by the Treaty as the north-west branch of the St. John.

Having determined this point, they will next have to agree upon the point on the main stream of the St. John, from which the straight line, ten miles in length, is to be drawn in the nearest direction to the point on the north-west branch of the St. John.

This being accomplished, they will have to ascertain authentically whether the last-mentioned point is seven miles distant from the nearest point of the summit or crest of the highlands designated in the Treaty.

If this fact shall have been already established in the affirmative by means of the joint or separate preparatory survey ordered by the Commissioners, as suggested in the early part of this despatch, the straight line may be traced at once from the Lake Pohenagamook to the point thus ascertained on the north-west branch of the St. John; and that point may be definitively laid down.

If, however, it should turn out to be less than seven miles distant from the nearest point of the crest of the highlands, it must be in that case brought down the north-west branch of the St. John until the stipulated distance of seven miles be obtained.

That the distance of the point on the north-west branch of the St. John to which the line from Lake Pohenagamook is to be drawn, should be at least seven miles from the crest of the dividing highlands is essential; but it is comparatively immaterial whether the line from the north-west branch of the St. John to the main St. John be a little more or a little less than ten miles in length. Provided that object be proximately attained, Her Majesty's Government will be satisfied.

Therefore it will not be necessary that you should be very particular as to the selection of the precise point of the River St. John from which that line is to be drawn; and you will consider yourself at liberty to agree to the adoption of any point which may seem to fulfil with proximate correctness the purposes of the Treaty.

You will do well, however, to weigh with great care any proposition which may be made to you by the United States' Commissioner involving a departure to any extent from the letter of the Treaty, or suggesting any considerable compromise with respect to the Line of Boundary in this particular quarter, at the same time that you will evince every disposition, on your part, to remove, by mutual concession, any difficulty which may arise between you respecting it.

On these matters much must depend on the good feelings and good understanding which may subsist between the two Commissioners.

If, contrary to our hopes, you should find in your American colleague a disposition to exact too much or to concede too little, you will in that case insist upon the accurate delineation of every part of the Line of Boundary in that quarter, as provided by the Treaty; and if you fail to arrive at a mutual settlement of the points in dispute, you will take them for reference to your Government.

For the scientific mode of tracing the Boundary Line and laying down the various points, especially in this difficult part of it, I cannot do better than refer you to the annexed memorandum which has been drawn up from the valuable suggestions of Professor Airy, Her Majesty's Astronomer Royal.

4. I now proceed to treat of the fourth section of Boundary, or that part of the Line from the north-west to the south-west branch of the River St. John; and thence to the intersection of the understood 45th parallel of north latitude with the River Connecticut.

The Treaty provides for the tracing of this part of the Boundary as follows:

"Thence," (i. e., from the north-west branch of the River St. John) "in a straight line, in a course about south, eight degrees west, to the point where the parallel of latitude of $46^{\circ} 25'$ north intersects the south west branch of the St. John; thence southerly by the said branch to the source thereof in the highlands at the Metjarmette Portage; thence down along the said highlands which divide the rivers that empty themselves into the River St. Lawrence from those which fall into the Atlantic Ocean, to the head of Hall's Stream; thence down the middle of said stream, till the line thus run intersects the old line of Boundary surveyed and marked by Valentine and Collins previously to the year 1774, as the 45th degree of north latitude, and which has been known and understood to be the line of actual division between the States of New York and Vermont on one side and the British Province of Canada on the other: and from said point of intersection west along the said dividing line, as heretofore known and understood, to the Iroquois or St. Lawrence River."

In this part of the Boundary the river intended by the Treaty as the south-west branch of the St. John is so clearly indicated by the words "to the source thereof at the Metjarmette Portage," that no doubt or difficulty can well arise in ascertaining and laying it down. Having done so, the parallel of $46^{\circ} 25'$ north must be accurately established upon it by means of astronomical observation; and the straight line described in the Treaty must then be traced to that point from the previously established point on the north-west branch of the St. John.

In tracing the Line from the source of the south-west branch of the St. John at the Metjarmette along the highlands which divide the rivers which empty themselves into the River St. Lawrence from those which fall into the Atlantic Ocean to the head of Hall's Stream, it will be sufficient to adopt the broad principle of a *general* division of the two classes of waters above described, the one from the other, without attending too scrupulously to that division in detail.

With this view you will propose to the United States' Commissioner that the Line should be traced, so far as it may be found practicable, along

the dividing ridge or crest of the highlands, in such a manner as to separate all the larger streams of the one class of waters from the other; but that no account should be taken of every little brook or rivulet which may be found to flow one way or the other.

To draw the Line with scrupulous nicety round the head of every little streamlet would occupy much time without producing any satisfactory result. All that is required is that the whole course of every stream of any magnitude should be secured to the party to which, under the Treaty, it of right belongs.

Hall's Stream, it is presumed, is sufficiently well known not to admit of question. The Line of Boundary will therefore have to be traced down the middle of that stream, and down the middle of the Connecticut River, to its intersection with the old and hitherto received parallel of 45th degree of north latitude, as described in the Treaty.

From that point there can scarcely be any difficulty in completing the Line of Boundary by tracing and marking it out along that old parallel, which, though astronomically incorrect, has been considered as the Boundary between the dominions of Great Britain and the United States ever since the Treaty of 1783, and has formed the basis of all contiguous grants of land, and settlements made by the subjects and citizens of both countries on each side of it respectively.

It will, however, be requisite that the Commissioners should verify and authenticate every part of that old Line, in order to avoid all future dispute.

When the Commissioners shall have completed their task of tracing the Boundary in its whole extent, from the monument at the source of the River St. Croix to the River St. Lawrence, it will be necessary, in conformity with the stipulation contained in the Vth Article of the Treaty of Washington, that they should "make to each of their respective Governments, a joint report or declaration, under their hands and seals, designating such Line of Boundary;" and that they should "accompany such report or declaration with maps, certified by them to be true maps of the new Boundary."

With this stipulation you will strictly conform.

It appears, however, to Her Majesty's Government, that in case the Commissioners should unfortunately have not been able to agree to the whole Line of Boundary, it would, nevertheless, be desirable, as tending to save much future trouble, that they should, at all events, make joint reports, and present joint maps, of such parts as they may have agreed upon.

Should the unexpected contingency of partial disagreement therefore occur, you will consider yourself authorized to make a proposition to the above effect to the United States' Commissioner.

Under any circumstances, however, you will take particular care to draw up correct and authentic maps and plans of every part of the Boundary ascertained by the British surveyors.

Her Majesty's Government consider that it will be desirable that each party, British and American, although acting and working together, should pay its own expenses respectively, in order to avoid the delays and embarrassments incident to joint accounts in such matters. The proceedings of the Commission may, it is apprehended, be so ordered as to insure a fair equality of expense on both sides.

The employment of woodsmen and other subordinate assistants will be left entirely to your own discretion. You will, of course, be careful, in this, as in all matters connected with the Commission, to observe as strict economy as may be compatible with rapidity and accuracy in the execution of the operations to be performed.

You will keep this Office constantly and circumstantially informed of all your proceedings. Should difficulties arise between you and the Commissioner of the United States, you will employ every reasonable effort in your power to overcome them; and you will not refer any point of difference home for the decision of Her Majesty's Government, until you have exhausted every means of amicable adjustment on the spot.

In case you should deem it advisable in such cases, you will have

recourse to the mediation of Her Majesty's Minister at Washington with the Government of the United States. It will also be proper that you should, from time to time, keep that gentleman acquainted generally with the progress which you are making in the work intrusted to you.

You will also place yourself in communication, whenever it may be necessary, with Her Majesty's Colonial Authorities, either in Canada or in New Brunswick.

I am, &c.,
(Signed) ABERDEEN.

Inclosure in No. 2.

Memorandum, drawn from suggestions by Professor Airy.

IT will probably occur in several parts of the Boundary Line to be traced and laid down, that astronomical determinations of the same thing will be required, at or about the same time, from the British and from the American astronomers, with a view to the comparison of those determinations. In these cases, the British astronomer ought, if possible, to arrange that his determination shall be made at least as early as that of the American astronomer's.

2. In all cases whatever, the observations should be reduced as quickly as possible. Thus the observations for the errors of chronometers, whether made with the transit instrument or with the altitude and azimuth instruments, should be reduced immediately; the observations for latitude, made at night, should be reduced the next morning; and so for others. And the selection of stars and other objects of observation, is to be made, and the general plan of observations to be arranged with special reference to this rule.

3. The astronomer should also consider it a matter of great importance to keep all his observations and calculations arranged in the most clear and distinct shape possible; so that if any discussion with the American astronomers should arise in the Boundary Country itself, or if it should be necessary to publish any part or the whole of the observations and computations, the manuscript books may be found in a state which will admit of examination or printing by other persons, without a moment's delay.

4 Every entry of observation, and every calculation, should be fairly made out in duplicate.

5. The first part of the Line of Boundary to be traced under the Treaty of Washington, is the north line, from the monument at the head of the River St. Croix to the River St. John, which, by the terms of the Treaty, is to follow an exploring line, run and marked in 1817 and 1818. In the event contemplated by the Treaty, it is probable that no astronomical observations will be required,

6. Should astronomical observations, however, be required, there are two plans of operation, both unexceptionable in a scientific point of view, and between which a selection may be made. One is the determination of the difference of longitude between the monument and an assumed north end, with the view of shifting that north end until the difference shall vanish. The other is, the laying down a north line from hill to hill, by planting a transit instrument in each place, adjusting it accurately to the pole, by transits of circumpolar stars, and then fixing (by signal) a mark on the next hill, corresponding to the position of the transit wire. It will be extremely desirable that the same method should be adopted by the British and by the American astronomers; and for this purpose, it may be necessary that the British astronomer should confer with the American.

7. The next part in which it is contemplated that astronomical operations may be called for, is in the tracing of the straight line from the outlet of the Lake Pohenagamook to a certain point on the north-west branch of the St. John. The difficulty of tracing this line by survey being considerable, it will be the duty of the astronomer to collect accurate

information respecting the facilities for carrying pocket chronometers from one extremity to the other (by canoe on the river, or any other way), in order to determine the difference of longitude; which, with the difference of latitude (about which there is no difficulty), would give the direction in which a line must start from either extremity, in order to strike the other extremity.

8. The next point is a determination of a point on the south-west branch of the St. John, at which the latitude shall be $46^{\circ} 25'$. This is obviously to be done by taking a station satisfying, as nearly as the astronomer can judge, the condition laid down in the Treaty; then determining its true latitude, and then shifting the station until the latitude is found to agree well with that of $46^{\circ} 25'$, required by the Treaty.

As this operation is plain, and its necessity unequivocal, the attention of the astronomer should be specially called here to the recommendation under Article 1.

9. The next part is the Boundary anciently but incorrectly traced as the 45th degree of north latitude, in which (as in that treated under Article 5) the old line is to be adhered to. With regard to this contingency, the same course is to be followed as that laid down in Article 5. If the Commissioner should judge that astronomical operations are advisable, two courses are open, which, in an astronomical view, are unexceptionable, and between which a selection must be made. One is, to determine by trials of latitude (in the same manner as in Article 8), a series of points whose latitude is accurately 45 degrees. The other is, to determine one point whose latitude is accurately 45 degrees; to determine also a north line with the transit instrument, to lay down from this an east and west line by the altitude and azimuth instrument, and to carry on this line from hill to hill (with the proper allowance for the difference between a parallel of latitude and a great circle). It will be desirable here, that the same course should be pursued by the British and by the American astronomers.

10. With regard to the determination of the latitudes and longitudes of points selected to serve as bases for a future survey of the country; it is needless to call the attention of the astronomer to the methods of determining the latitude; but it is proper to point out the cautions which will be required, in order to make the longitudes worthy of credit. Two methods only can be resorted to with success: one, the observation of transits of the moon's limb, combined with the observation of transits of the principal fixed stars, or moon culminating stars; the other the observation of the moon's distance from the sun and stars, by means of a sextant or other reflecting instrument. The labour entailed by the former of these methods, is so small, that it is proper, at all events, that the astronomer follow it, as long as he shall remain at one of these posts, giving great attention to the state of adjustment of the transit, and observing, if possible, as many transits after full moon as before full moon. But the second is probably the method on which he must principally rely; and for this the following cautions are indispensable: that at each set of observations, the astronomer observe distances of one object east of the moon, and of another object west of the moon, at nearly equal distances; and that he obtain as many sets of observations before full moon, as after full moon. It is unnecessary to point out that his time must in all cases be accurately known, and that the moon's zenith distance must be measured with tolerable exactness.

11. The necessity for immediate calculation of the observations (as enjoined in Article 2) does not exist here to the same extent as for the observations which apply to the tracing of the Boundary Line. Nevertheless, it is desirable that the computations be carried at once, as far as they can be carried, consistently with general convenience; since it is only by comparing results, when the circumstances of observation are fresh in the memory, that many errors can be discovered, and since the preservation of the results in the memory or in manuscripts of small extent, will be a considerable guarantee against the loss of this labour, by the destruction of the more bulky books of observations and computations.

No. 3.

The Earl of Aberdeen to Lieutenant-Colonel Estcourt.

Sir,

Foreign Office, March 31, 1843.

IN addition to the general instructions which I have conveyed to you in my despatch of this date, I have further to desire that in the course of the execution of those instructions, you will not fail to examine minutely, in a military point of view, every part of the Line of Boundary which will be surveyed by yourself or the officers under your orders, and to note down any point which, in the course of the operations, may strike you as worthy of being remarked upon, and brought to the notice of your Government.

You will carefully keep a record of all such matters, with a view to their communication to the Commander-in-chief.

You will also of course prepare maps and plans of all parts of the country surveyed by the British surveyors.

I am, &c.,
(Signed) ABERDEEN.

No. 4.

Lieutenant-Colonel Estcourt to the Earl of Aberdeen.—(Received May 15.)

My Lord,

Boston, April 19, 1843.

I HAVE the honour to inform your Lordship that we landed this morning at this place, and that I have communicated my arrival to Mr. Fox, Sir Charles Metcalfe, and Sir William Colebrooke.

I have just now had a visit from Mr. Smith, the Commissioner of the United States, from whom I have learnt that the strength of his assistants will be equal to that on our side; and I think, from the conversation I have had, that Mr. Smith will be equally ready with myself, to send the astronomers and surveyors forward to the Upper St. John and St. Francis, to prepare, as I have proposed, a survey of that portion of the country, which will enable us to decide upon the points required by the Treaty, with, I hope, but little delay.

From all I can learn of the state of the country, both at Halifax and at this place, I do not think it probable we shall be able to take the field very early. This winter has been, on this side of the Atlantic, remarkable for its severity and duration. In the mean time, I shall make every practicable preparation, so as to expedite the work as much as possible, when we do begin our operations.

I have, &c.,
(Signed) J. B. BUCKNALL ESTCOURT, *Lt.-Col.,*
British Commissioner.

No. 5.

Lieutenant-Colonel Estcourt to the Earl of Aberdeen.—(Received May 29.)

My Lord,

St. John, May 12, 1843.

I HAVE the honour to inform your Lordship that I met Mr. Albert Smith, the American Commissioner of Boundary, on the 1st of May, at Bangor, where we opened the Commission intrusted to us, and agreed upon a general plan of proceeding, by which I hope a fair rate of progress will be ensured to our operations.

The season is so late that we found it necessary to adjourn from

Bangor, agreeing to meet again at Houlton on the 1st of June, with our parties.

In obedience to your Lordship's instructions, I did not fail to declare to Mr. Smith, the earnest desire of Her Majesty's Government, that the two Commissioners should, on all occasions, act together with the utmost harmony and cordiality; and that I was instructed to meet the United States' Commissioner in a spirit of perfect fairness and openness, and readiness, by all proper means, to smooth difficulties. Mr. Smith professed the same feeling on his side, and I feel very confident that he will act upon it.

The general plan of operations to which we have agreed, is to send all our scientific gentlemen to the Great Falls of the St. John, and to leave them to survey the river from thence upwards to the Lake Pohenagamook on the St. Francis, the astronomers fixing convenient stations at different points, and the surveyors laying down the course of the river with the islands, and the course of the deep channel. Whilst this is in progress, the two Commissioners will trace the North Line according to the terms of the Treaty, and, having done so, establish the cutting parties. They will then leave the cutting parties to continue that operation, and proceed themselves to the outlet of the Lake Pohenagamook.

The officers and the sappers who came out by the "Hibernia," arrived safely here on Monday last the 8th instant.

Mr. Featherstonhaugh has been here some time; he came on immediately after our arrival at Boston, and has been extremely useful in making preparations for us. Whenever the river will admit of it the whole party will remove to the Great Falls; but as yet there is no possibility of tracking up the St. John on account of the great flood of water.

I have, &c.,
(Signed) J. B. BUCKNALL ESTCOURT.

No. 6.

Lieutenant-Colonel Estcourt to the Earl of Aberdeen.—(Received July 28.)

*Grand Falls of St. John, New Brunswick,
July 7, 1843.*

My Lord,

ACTING upon the instruction I received from your Lordship, I have engaged the services of Mr. Wilkinson of this province, for the Boundary Commission.

The terms of the engagement are, 25s. currency, about 20s. sterling, per diem.

Mr. Wilkinson is to have the direction of the cutting and survey of the north line. He has already four parties at work between the intersection of the St. John and the Aroostook.

I am sure he will be enabled to render great service to the Commission.

I have, &c.,
(Signed) J. B. BUCKNALL ESTCOURT.

No. 7.

Lieutenant-Colonel Estcourt to the Earl of Aberdeen.—(Received August 14.)

My Lord,

Woodstock, July 22, 1843.

IT is right I should give your Lordship some account of the progress of the Commission.

On the 16th of June, accompanied by Mr. Lally, a gentleman deputed

for the duty by the American Commissioner, and by Mr. Scott, I began the exploration of the North Line.

We followed the old cut-out line of 1817, from the monument at the source of the St. Croix, tracing it by the old stumps, by the young growth, and by a certain dip in the upper line along the tops of the trees against the sky, which indicated where a cut had been made.

This line we followed, until, about a mile north of the south branch of the Meduxnieag, we came to a small open green space of about half an acre, beyond which no further traces could be found.

We then crossed over eastwards to Major Graham's line in search of some marks to carry us on; but found none. However, upon making a cast again to the north-west we hit upon a line of old blazes which carried us to the intersection of the St. John, about half a mile west of Major Graham's line. This line was without doubt the explored line of Colonel Bouchette and Mr. Johnson, because we frequently found trees marked as they had marked them, a record of which we fortunately had with us; Mr. Wilkinson having sent me a copy of the original field notes of Colonel Bouchette which Mr. Odell, in whose possession they are, had lent to him.

To ascertain if possible the history of the cut-out line, which was held to be the boundary by the British, though denied by the Americans, and to connect the blazed line, which had brought us to the St. John, with the monument, it was necessary to return and trace that line south from the point where we had become certain that it was the true Exploring Line.

This we therefore did, striking upon it at the north branch of the Meduxnieag, and running it south, until it became identical with the cut out line at about the ninth mile from the monument. We thus had traced a complete line reaching from the monument to the St. John, of which about fifty miles of the northern portion were undoubtedly the Exploring Line of Colonel Bouchette and Mr. Johnson. I did not however feel quite satisfied that the evidence was so complete as to warrant my consenting to the southern portion of the Line, especially as some few British settlers were located upon the old cut-out line, and had their boundary upon it.

I therefore searched for evidence as to where the "Exploring Line" really did run in the southern portion.

The field notes of Colonel Bouchette described the point where it crossed the south branch of the Meduxnieag to be where two rapid streams fall into that river on the north shore within eight feet of each other. Such streams we hit upon, when following the line of blazes south, and found also blazed trees close to the water-mark both on the north and south shores.

Testimony obtained from people who were anxious to impress me with a belief that the cut-out line was the true one, tended to prove that on the contrary the exploring line was *not* the cut-out line, and that in fact it coincided with the line we had found. I did not however give up the point until I had communicated with Mr. Campbell, the assistant surveyor under Colonel Bouchette, who, with Mr. Turner on the American side, had actually cut the line known as the cut-out line. He sent me his field notes and his plan, both of which confirmed the line we had traced south to be the "Exploring Line."

The plan marks nine chains from the cut-out line to the Exploring Line at the twenty-mile post.

The field notes state that when it was agreed to cease cutting on the 4th of October, 1817, Mr. Campbell measured from his twenty-mile stake to the Exploring Line of Colonel Bouchette, and found it nine chains sixteen links. All this agrees with the measurement I had myself made before I received Mr. Campbell's field notes.

Therefore we have satisfactorily traced the Exploring Line from the monument to the St. John, and ascertained by evidence that we have not been mistaken.

Mr. Smith has a party of about twenty-five men employed in cutting

from the monument northwards, and they have reached close on the thirteenth mile.

I have four parties cutting on the St. John and Aroostook under Mr. Wilkinson, and they have, I should suppose, completed about twenty miles. I have not however seen them for a fortnight, having been occupied on the Meduxnieag in examining the difficulty I have related.

The boats with provisions and the instruments reached the Grand Falls on the 18th of June; when Captain Robinson and Lieutenant Pipon began their astronomical observations to determine the difference of longitude between the Grand Falls and the mouth of the Madawaska. By this time they have got on to the mouth of the St. Francis.

Mr. Featherstonhaugh, who has rendered me very great service in making our necessary preparations, is now surveying from the St. Francis downwards, whilst Captain Broughton is surveying from the Grand Falls upwards.

I return myself on Monday northwards, and expect the American Commissioner to follow me in a week to go on to Lake Pohenagamook. Such is the distribution of our party and the progress of our operations.

On the American side I find every readiness to get forward amongst the gentlemen charged with the survey. They have during the three last years completed almost all that is necessary in astronomy for them to do on the St. John, and therefore they proposed to send forward a party of surveyors to the North-West Branch. To that course I readily assented, hoping, that when we come to that part, they will have fixed some point as agreeing with the terms of the Treaty, and that we shall be able with little delay to verify it, and establish it as the point to which the south-west line is to run.

They have left in company with Mr. Featherstonhaugh and Captain Broughton three surveyors, and by their joint operations a map will be constructed, which will guide the American Commissioner and myself in drawing the Line of Boundary along the St. John and in distributing the islands.

Trusting that this account of our proceedings will be satisfactory to your Lordship,

I have, &c.,
(Signed) J. B. BUCKNALL ESTCOURT, Lt.-Col.

No. 8.

Lieutenant-Colonel Estcourt to the Earl of Aberdeen.—(Received September 14.)

*Camp at the Mouth of the St. Francis,
August 20, 1843.*

My Lord,

I HAVE the honour to inform your Lordship that the outlet of Lake Pohenagamook has been agreed upon. I proceeded thither last week in company with an officer deputed to the duty by the American Commissioner.

The termination of the lake is so bold, that there was no difficulty in declaring where the outlet should be fixed. A stake was accordingly driven deep into the shore as a guide to the surveyors.

I reached this place on my return yesterday, Saturday, and to-morrow shall take advantage of the rain, which is falling heavily, to go up to the North-West Branch.

The St. John had become very low, and the navigation almost impracticable between this point and the North-West Branch.

The St. Francis is deep and still in great part of its course, the waters being kept back by many rapids, which, however, are generally short and not difficult.

I have, &c.,
(Signed) J. B. BUCKNALL ESTCOURT, Lt.-Col.

No. 9.

*Lieutenant-Colonel Estcourt to the Earl of Aberdeen.—(Received
January 14, 1844.)*

My Lord,

Washington, December 2^d, 1843.

I DO not propose to make your Lordship a report of the proceedings of this Commission from the period at which my last communication ended until I return to Quebec, and until the whole of the operations which belong to the first year have been terminated. They are not yet quite finished for the winter overtook us and interrupted the transmission of the chronometers by the river. Captain Robinson and Lieutenant Pipon were therefore obliged to suspend their work, and remain waiting until the ice on the St. John should be able to bear a sleigh. In the meantime they have housed themselves at their stations, which are, Captain Robinson on the St. John, at the intersection of the line cut by the American party in order to measure the ten miles to the North-West Branch,—it is about a mile below the mouth of the North-West Branch; and Lieutenant Pipon at the mouth of the Great Black River.

The comparison of chronometers having been completed between those stations, the first year's work will have been accomplished, and we shall have the means of ascertaining the difference of longitude between the outlet of Lake Pohenagamook and the point on the North-West Branch, and, therefore, we hope of running a line between them in March. It will be a trial line, and it is not to be expected that it will be quite correct; but Captain Robinson and Lieutenant Pipon have been so careful and so successful in their astronomical operations that we look with confidence to a good result of the calculations which will guide the true direction of the South-West Line.

Your Lordship will understand that the operations of this year will have been shortly as follows:

The North Line from the monument to the St. John River, explored, cut out from end to end thirty feet wide, surveyed, and marked, almost, not quite, with cast-iron monuments.

The survey of the St. John from the Grand Falls to the St. Francis, and the apportioning of the islands.

The survey of the St. Francis and the Lake Pohenagamook.

The fixing of the outlet of Lake Pohenagamook.

The measuring of the ten miles from the St. John to the North-West Branch.

The survey of the country towards the St. Lawrence, to ascertain the state of the case as regards the seven miles required by the Treaty.

The fixing within a few feet of the point on the North-West Branch.

And a chain of astronomical observations from the Grand Falls to the outlet of Lake Pohenagamook, and from thence to a point near the mouth of the North-West Branch, where the line cut and measured for the ten miles intersects the St. John.

The proceedings of next year will be carried over a very large portion of country at the same time. We propose to run the North-West Line, the South Line, to survey the highlands, and perhaps to examine the 45th parallel of latitude at the same time. The whole is perfectly feasible if your Lordship will approve of a greater strength of Sappers to be added to the Commission.

The six non-commissioned officers of that corps we have now are disposed of thus:

Each astronomer has two attached to him, and each surveyor one.

Next year each astronomer will still require two, but for the highlands each surveyor will require eight, making sixteen; two are already at their disposal, therefore we want fourteen.

I ask for this addition in the confident expectation that the whole of our work will come very close to an end next year. I do not think entirely to an end, but still very nearly so.

Each of the Sappers will have to work by himself, and therefore should

be competent to survey, and to run lines of levels. That will be their principal duty.

In urging this addition, I must remark to your Lordship, that the real expense of wages incurred by employing Sappers is less, considerably, than by employing people in the country; besides that, they are infinitely more efficient and trustworthy. By their conduct and acquirements the Sappers we have had with us have drawn forth the praise and admiration of the American party. The Americans have no persons to stand in the place of them. People with equal acquirements in this country are paid four dollars a-day, whilst the wages of even the common labourers &c both employ are equal to those of the Sappers. It is therefore satisfactory for the accuracy of the work, and good economy, to employ non-commissioned officers of Sappers for all the minor survey.

The operations on the highlands will be conducted in two directions; each party will consist of British and Americans; their work will be so arranged that each assistant shall work by himself, and therefore that each party may cover as much ground as their numbers will admit.

In case your Lordship should approve of my application, I beg to recommend that the man be sent out in a sailing vessel, so as to arrive at Quebec about the opening of the navigation. The first vessels commonly leave Liverpool in March, which would be in ample time, for I do not think they will be actually required until the middle of May. They should, however, run no risk of being later than the 15th of May.

I have, &c.,

(Signed) J. B. BUCKNALL ESTCOURT, *Lt.-Col.*

No. 10.

Lieutenant-Colonel Estcourt to the Earl of Aberdeen.—(Received February 19.)

My Lord,

Quebec, January 23, 1844.

THOUGH the operations of the first season have not, in fact, been brought quite to an end, yet, as the year has closed, and as we have so nearly finished as to make the completion certain, I will not delay a narrative of the Commission from the date of my despatch from Woodstock, July 22nd.

That informed your Lordship of our having succeeded in tracing the old Explored Line of Colonel Bouchette and Mr. Johnston. Progress had already been made in cutting it out. The southern portion was undertaken by Mr. Smith, from the monument to the Presqu'isle River, and the northern by me from thence to the St. John.

I placed Mr. Wilkinson in charge of our share with four cutting parties, afterwards increased to five. The Line which has been cut is thirty feet wide, with a way down the middle cleared of all logs, by which to haul the monuments to their places.

The trees having old blazed marks have been left standing in the clearance about fifteen feet high. The whole cutting was finished in two months, that is, by the end of August.

The Line was then surveyed by Mr. Wilkinson, in conjunction with Mr. Lally, on the part of the American Commission.

In drawing the Line which was to be the actual Boundary, the surveyors were directed to straighten it as much as possible, taking care only to keep within the thirty feet of the cutting, and making, as far as possible, the angles, where a new direction was taken, to coincide with the miles.

The marks adopted are plain cast-iron posts, made at a foundry at Boston, six feet high, four inches square at top and six at bottom. They are hollow, and fit over a cedar stake.

The survey of Mr. Wilkinson and Mr. Lally was not finished until December 6th. They were, for the last five weeks, exposed to severe weather, heavy falls of snow, and severe frosts.

The monuments were conveyed by boats up the St. John to con-

venient points, and carried into the Line by waggons and sleighs, along openings which have been cut at different times by lumberers.

This then is the history of the operations on the North Line.

I return now to an earlier date.

Within a few days of the arrival of our party at Fredericton, Captain Broughton was directed to make his way with one sapper to the mouth of the St. Francis, and build there a log hut, as a store for provisions: after which he was to survey the River St. John from thence downwards. The rest of our party went by boats up the St. John to the Grand Falls, as soon as the water had sufficiently subsided in the river. They reached the Grand Falls on the 18th of June.

Captain Broughton had effected his object at the mouth of the St. Francis, and had made some progress in his survey, by the 1st of July, when it became desirable that he should return to the Grand Falls, and survey from thence upwards, in conjunction with the American party, whilst Mr. Featherstonhaugh, also with an American party, took up Captain Broughton's survey.

These parties were directed to sound about the islands, so as clearly to establish the course of the deep channel. The care and exactness with which this was done, facilitated afterwards the apportionment of the islands. Duplicate charts were prepared of the islands, in detail, and were signed by Captain Broughton and Lieutenant Lee, the officer intrusted with the work on the American side. These were laid before Mr. Smith and myself. Upon them we drew the Line we deemed to be the Boundary; and having both signed them, we each retained a set, as authentic documents of our decision.

These charts were ready by the 12th October, on which day I met Mr. Smith by appointment, at the Grand Falls; and on the 13th instant the assignment of the islands was completed.

The line of the deep channel was followed in all the cases, except one called La Septième Isle, where the difference of depth on the two sides, was one-tenth of a foot; that was in favour of the United States. But that was deemed too small a quantity to constitute a claim; I therefore proposed to Mr. Smith that it should be given to the side on which lived the majority of the owners. Reference was made to the field-notes of the surveyors; when it appeared, as Mr. Smith and I understood, that out of four owners, two lived on the American side, one on the island, and one on the British side. Accordingly, the island, by the rule we had established, was assigned to the United States. In consequence of a doubt which has since been cast upon the correctness of our information, it has been agreed to consider that island as still unapportioned. It is probable, however, that our decision will not be altered. It appears that Mr. Smith and I misunderstood the note, that no owner resides on the island, but that three, instead of two, live on the American side, and one on the British.

Throughout all these proceedings I beg to state that I have met with a frank and liberal disposition from the American Commissioner, as well as from all the gentlemen employed under him.

I will now relate my own movements after my arrival at the Grand Falls from Woodstock.

I had agreed to meet Mr. Smith again, at the outlet of the Lake Pohenagamock, to settle that point in the Treaty.

Accordingly, I proceeded up the St. John and St. Francis, and met Captain Johnston of the United States' Topographical Engineers, who was deputed by Mr. Smith to act for him.

The establishing that point on the 15th August has already been reported to your Lordship.

After an examination of the lake, and of a portion of the St. Francis above the lake, I descended the St. Francis again, and ascended the St. John to the North-West Branch. There I found that the American party, which had gone up early in July, had cut an experimental line, on which to measure the ten miles required by the Treaty; but it had turned out to be nearer eleven than ten miles, and they were, therefore, about to cut another line. They had made a survey of a portion of the

St. John, near the mouth of the North-West Branch, and of the North-West Branch itself.

My object was to examine the country with reference to the seven miles stipulated in the Treaty, and to fix upon a convenient site for a principal depôt of provisions. This last was easily found on the opposite side of a lake, which opened upon us, just above the point likely to prove that which would be fixed for the Boundary on the North-West Branch.

But now a serious consideration presented itself, of how to supply this depôt. We had seen how soon in the summer the water subsides in the St. John, leaving not sufficient depth to float a canoe; we had also seen how difficult a river it is to navigate, especially with boats heavily laden. The current is strong—the rapids are frequent, and two of them are at times very formidable. We had ascended, as fast as we could, yet it had taken six days from the mouth of the St. Francis.

It was evident then, if the depôt at the North-West Branch was to be supplied by the river, that it would prove not only extremely difficult, but also very expensive.

By reference to the map, St. Thomas appeared to be the nearest point on the St. Lawrence to the station selected for the depôt. It seemed to be also the direction in which to examine the country to ascertain the state of the case, as regarded the seven miles of the Treaty. I therefore determined to cut a communication with St. Thomas, beginning on the St. Thomas side, so as to carry in provisions as the cutting party advanced.

This was already the end of August; the North Line was to be finished by the 31st of that month. Mr. Scott, therefore, hastened down the river to the Madawaska, met the cutting parties, whom Mr. Wilkinson was now directed not to discharge, brought them across the Tamiscouata Portage, and up the shore of the St. Lawrence to St. Thomas.

In the mean time, directed by a compass, having taken the best course a small map could give, I struck into the forest and reached St. Thomas on the fourth day. There I found a road, which, some years before, had been opened from St. Thomas directly back into the woods; it was twelve miles long, and for that distance would serve our purpose.

Mr. Scott and his party arrived on the 14th September. I gave him the charge of opening the communication I desired. It required both judgment and exertion, because another party under Mr. Featherstonhaugh had been ordered up to the North-West Branch with only a limited supply of provisions; and they were to depend upon Mr. Scott and the communication he was about to open. He overcame the difficulties which he had continually to encounter, and reached the lake of the depôt in time.

Mr. Featherstonhaugh ascended with the above party from the St. Francis, constructed the buildings necessary for a winter depôt, and then set about to survey, in reference to the seven miles of the Treaty.

The road being within six miles, as we supposed, of its completion, I pushed through the woods again to the lake, lighted a large fire on the top of a hill close by, to give Mr. Scott the direction in which to cut, and then descended the St. John to meet Mr. Smith, for the apportionment of the islands, as I have related.

After that, I returned to the lake on the North-West Branch. It is called by the Indians Lake Ishaganalshegeck. Mr. Scott had finished his road, which proved to be about forty miles long, and was engaged in bushing out paths, and clearing at the tops of certain prominent hills, which were to be stations for triangulation in Mr. Featherstonhaugh's survey.

All this being finished, the men were re-conducted to St. Thomas and discharged on 22nd November.

A high remarkable hill, which stands in front of the dividing ridge of the highlands, was fixed by triangulation, and found to be more than nine miles distant from the point on the North-West Branch. The dividing ridge itself must, therefore, be at a still greater distance, not less, I imagine, than twelve miles, judging from the appearance of the country, of which we obtained, from different hills, a very good view.

All the operations were finished, and we left the woods by 25th November, at which time the snow was about two feet deep.

I now proceed to relate the operations of Captain Robinson and Lieutenant Pipon.

They arrived at the Grand Falls with the instruments on the 18th June, and commenced their observations immediately.

They were to establish differences of longitude between the following stations :—

1. Grand Falls.
2. Mouth of the Madawaska River.
3. Mouth of the St. Francis.
4. Outlet of Lake Pohenagamook.
5. Mouth of the Great Black River.
6. Point on the North-West Branch.

The observations have occupied the whole season. Six interchanges of chronometers were obtained between each pair of stations, and the results have been, I understand, very satisfactory.

In all this the British astronomers worked alone. Major Graham did not come up till late in the season, in consequence of domestic affliction. In fact, he had already the previous year done much of that which we had to do this season. He might, therefore, be considered in advance of us.

The last change of station for astronomical observations was that of Captain Robinson, from the mouth of the St. Francis to the point on the St. John where the second line cut by the American party intersects that river.

He arrived there after a very difficult journey; the weather had become extremely cold; he had to encounter severe snow storms; ice formed on the men's poles as they worked; in fact they suffered a good deal.

Shortly after Captain Robinson arrived at his station the river became unnavigable, and, consequently, no further communication could take place between him and Lieutenant Pipon, who remained at his station at the mouth of the Black River.

They built themselves log-houses, and waited for the ice on the river to become strong enough to bear a sleigh.

During this time Captain Robinson had the American ten mile line measured accurately. His measurement differs from that of the American party. They make it 10 miles and 110 feet; whereas, by his measurement it is 10 miles and 363 feet. In shortening it, however, as I do not propose to insist upon great exactness, there will be no difficulty in satisfying both sides.

To conclude, then, that which relates to the astronomical operations, I am glad to be able to say, that in about ten weeks after the arrival of Captain Robinson at his station, *i.e.*, about the 1st January, the river froze sufficiently to admit of the interchange of the chronometers by sleighs. One comparison had been effected at the beginning of last week.

We shall, I hope, shortly have the means of calculating the direction of the long south-west line between Lake Pohenagamook and the North-West Branch. As soon as that is the case Captain Robinson and Lieutenant Pipon will leave the woods.

I may here be permitted to call the attention of your Lordship to the perseverance of these two officers, who have continued observations, requiring skill and delicacy, through very severe weather, and during the night, the thermometer ranging as low as 25° below zero.

The Sappers attached to the Commission will remain in the woods, and taking advantage of the frozen state of the rivers and lakes they will carry surveys along their courses as far from their log-huts as the weather and climate will permit.

I have now related all the operations of the Commission up to the present time.

It may, perhaps, be convenient that I should detail to your Lordship the organisation by which these operations have been carried on.

Proposing to make each officer efficient by himself and able alone to

conduct the work which might be assigned to him, I determined, in the first place, to give to each a party and equipment sufficient for that purpose.

I calculated that each officer would require three bateaux for moving and for his survey. The men necessary to manage these would be sufficient for his camp and for any work he might require; twelve bateaux were therefore procured for the six officers.

Thirty-six men were hired, who were axemen and canoe men.

No alteration was afterwards found desirable in this arrangement.

Two depôts of provisions were formed at the Grand Falls and at the mouth of the St. Francis.

Two issuers were engaged to take charge of them.

To keep up communication an Indian was engaged, whose business it was to move up and down from end to end of the line of operations, touching at each party as he passed, and at the post office at Madawaska.

The cutting parties, composed of young men from the neighbourhood chiefly of Woodstock, generally the sons of farmers, were organized into parties of sixteen, under a foreman. Each party was made complete in its own equipment after the manner of lumberers.

The number of parties were five. An officer had the superintendence of the whole. On the north line that officer was Mr. Wilkinson; between St. Thomas and the North-West Branch it was Mr. Scott.

To carry the chronometers for comparison in the astronomical observations three Indians were employed, because Indians are the most skilful canoe men. One was stationed at the camp of each officer, and the third midway between them.

After October 13th the depôt at the Grand Falls was removed to Lake Ishéganalshegeck, where provisions were carried from St. Thomas, in single-horsed carts in the autumn, and in sleighs since the snow has rendered it practicable.

When the navigation of the St. John closed the Indians were discharged; but as soon as it became sufficiently frozen to bear a sleigh, three Canadian carioles, a small species of sleigh, were hired, and placed, as the Indians had been during the summer, to carry on the interchanges of the chronometers.

I come now to the plans for next season.

I have the honour to inform your Lordship that I have been to Washington to arrange with Mr. Smith and Major Graham a plan of operations. It was considered by us advisable to make that the place of meeting for the purpose, in order to have communication with the Government of the United States and with Mr. Fox.

The plan upon which we have agreed is as follows:—

Before the snow leaves the ground, and whilst the rivers and lakes are still frozen, I have proposed to run the line between Lake Pohenagamook and the North-West Branch. The American gentlemen cannot take part in this so early in the season as March; but great advantages will result if the operation prove successful; because the country through which the south-west line will run, is intersected with lakes and rivers, which would much impede the work in summer. Also it will be of great importance to be able to set the cutting parties to work early to open the line to the proper width.

The 1st of June is named as the day on which the two Commissioners are again to meet.

Mr. Wilkinson and some officer of the American party will finish what may have been left on the north line. After that they will place the monuments on the islands.

On the 1st of June also the parties destined for the survey of the highlands will meet on the frontier on the Kennebec Road. They will conduct their surveys right and left, towards the Metjarmette Portage and towards Hall's Stream.

For clearing the Line it is agreed that Mr. Smith should undertake the highlands from the Metjarmette Portage to Hall's Stream, whilst

I am to undertake from Lake Pohenagamook to the Metjarmette Portage.

This is the general plan of proceeding, for which we are both to prepare.

On our side those preparations consist chiefly in storing provisions at—

1. Lake Pohenagamook.
2. North-West Branch, *i. e.*, Lake Ishæganalshegeck.
3. Height of land on the Kennebec Road.
4. Lake Megantic.

Before the close of the St. Lawrence provisions were with this view taken to—

1. Point Lewis.
2. St. Thomas.
3. Rivière du Loup.

During the winter they will be taken from Point Lewis to the height of land on the Kennebec Road and Lake Meganti

From St. Thomas to Lake Ishæganalshegeck.

From Rivière du Loup to Lake Pohenagamook.

There will also be formed during the winters small dépôts on the two Black Rivers, and on a long lake which lies between them; they will be formed where the Line crosses those waters.

After the south-west line is traced I expect to be obliged to stop proceedings for a time. The rains and the melting of the snow will probably lay the country under water.

I have, &c.,

(Signed) J. B. BUCKNALL ESTCOURT, *Lt.-Col.*

No. 11.

The Earl of Aberdeen to Lieutenant-Colonel Estcourt.

Sir,

Foreign Office, March 4, 1844.

I HAVE received and laid before the Queen your despatches of the 22nd of July of last year, and of the 23rd of January of the present year, in which you report in detail the whole proceedings of the Boundary Commission, since the 16th of June last.

I have much satisfaction in informing you that Her Majesty's Government view with high approbation the energy and ability with which the operations of the Commission have been conducted, both by yourself and by all the officers and gentlemen under your orders; and Her Majesty's Government are no less gratified by the report which you make of the perfect harmony and friendliness of feeling which has invariably prevailed between you and your American colleague.

It is needless for me to urge on persons who have already exhibited such persevering diligence the necessity of continuing in the same course of activity, in order to bring the labours of the Commission, if possible, to a close by the end of this season. Her Majesty's Government feel that they may entirely confide in you and your officers for doing all that depends on you for effecting an object which they have so much at heart.

In order to increase your power of execution, the additional Sappers requested by you in your despatch of the 20th of December, 1843, have been placed at your disposition, not without some little inconvenience to other branches of the service, by the Master-General of the Ordnance. It was found, however, impossible to assign to you fourteen non-commissioned officers; but eight non-commissioned officers and six picked privates will proceed to join you by the earliest opportunity which may offer.

The additional instruments, also, which you have desired, will be sent out to you by the same opportunity.

I am, &c.,

(Signed) ABERDEEN.

No. 12.

Lieutenant-Colonel Estcourt to the Earl of Aberdeen.—(Received May 29.)

My Lord,

Quebec, May 8, 1844.

I HAVE the satisfaction to be able to communicate to your Lordship the successful tracing of the south-west line between Lake Pohenagamook and the North-West Branch, to effect which we have been in the woods since the 1st of March.

Captain Robinson took his station at the north-west branch and Lieutenant Pipon at Lake Pohenagamook. Mr. Scott conducted the cutting party of Captain Robinson.

On the 17th of April the heads of the lines came in sight of each other. They were prolonged until abreast of each other, when the distance between them was found to be only 340 feet, being an actual error of 170½ feet, a quantity so small for the nature of the operation, that it will be considered a result reflecting great credit upon the two officers, upon whose observations and calculations the work depended. I mean Captain Robinson and Lieutenant Pipon.

The whole length of the Line is 64½ miles.

Mr. Scott ran a line 42½ miles and Lieutenant Pipon's men 22 miles. The observations upon which the direction of the Line was calculated, your Lordship will remember to be those made during the winter, which in fact were not completed until the first week in February.

The error of 170½ feet is now in process of correction, indeed it is probably already corrected.

The next operation will be to cut the Line to the proper width; but that is easy of execution. It will be under the superintendence of Mr. Wilkinson, and will be finished by the middle or end of July.

During the months of February, March, and part of April, two Sappers were successfully employed in surveying on the ice the River Mataway-quam, which falls into the North-West Branch, and the Great Black River.

I have, &c.,
(Signed) J. B. BUCKNALL ESTCOURT, Lt.-Col.

No. 13.

The Earl of Aberdeen to Lieutenant-Colonel Estcourt.

Sir,

Foreign Office, June 3, 1844.

I HAVE received your despatch of the 8th ultimo, in which you report the proceedings of the English portion of the Commission since you recommenced active operations in March.

Her Majesty's Government have been much gratified in learning the successful result which combined science and energy have effected in tracing the Line from Lake Pohenagamook to the north-west branch of the St. John in the short space of time which has elapsed since you entered again upon your duties; and I have much pleasure in conveying to you, and through you, to Captain Robinson, Lieutenant Pipon, Mr. Scott, and the men serving under them, the entire approbation of Her Majesty's Government.

I am, &c.,
(Signed) ABERDEEN.

No. 14.

The Earl of Aberdeen to Lieutenant-Colonel Estcourt.

(Extract.)

Foreign Office, July 3, 1844.

HER Majesty's Government are apprehensive lest the Boundary operations on the part of the United States should have been suspended or obstructed, by the circumstance of no funds having been assigned by Congress for the use of their Commission, during the present season. Should that turn out to be the case, I have to desire that you will put yourself in immediate communication with the United States' Commissioner, either personally or by letter, as you may deem most expedient, and that you will propose to him that you and your officers and men should continue the survey and tracing of the Line from the north-west branch of the St. John forwards, as far as the 45th parallel of latitude; and, should there be time, along the old 45th parallel, as provided by Treaty, in the same manner as you have executed that part of the Line between Lake Pohenagamook and the north-west branch of the St. John's, and subject of course to the same control and supervision on the part of the United States.

You will further propose that, although in the first instance, you would be obliged to defray the expenses of these operations, those expenses should be eventually borne in just proportions by both countries, for which purpose you would submit your accounts to the United States' Commissioner, and, when approved, demand the repayment of one-half of the sum expended.

No. 15.

Lieutenant-Colonel Estcourt to the Earl of Aberdeen.—(Received August 30.)

(Extract.)

Height of Land, July 24, 1844.

I HAVE the honour to acknowledge your Lordship's despatch dated July 3, received this night.

The delay in making the appropriation necessary for continuing the operations of the American Commission, has retarded them up to this moment. But a party destined for the survey of the High Lands arrived here last week, and expect Mr. Smith daily. I hear too, that some of their stores have gone up the St. John. It is not probable, however, that Mr. Smith will find himself in possession of the means of completing the cutting of the Boundary Line throughout the High Lands this year. I shall, therefore, under the authority of your Lordship's instructions just received, propose to take part in that operation.

I am glad to find I have followed your Lordship's wishes, in continuing the survey, even though not yet joined by the American party. The officers of the British Commission have not ceased to push their operations forward, since they recommenced the first week in June. The latitude 46° 25' on the South-West Branch has been fixed by Lieutenant Pipon, and I have long since desired that the Line should be run between the North-West and South-West Branches, without waiting for the assent of the American Commissioner, feeling sure that, as the extremities of the Line are to be determined by astronomical observations, or by actual measurement on the ground, and that the Line is to be a straight line, no great error can well be committed. I have had no very recent communication from Lieutenant Pipon or Captain Robinson, but I have no doubt progress has been made in running that line.

In this quarter the survey has made as much progress as can have been expected. Captain Broughton has his camp about fifteen miles distant, in the direction of Hall's Stream, and Mr. Featherstonhaugh has his about the same distance in the direction of the Metjarmette Portage.

No. 16.

Mr. Addington to Lieutenant-Colonel Estcourt.

Sir,

Foreign Office, November 4, 1844.

AS the Boundary operations will, by the activity with which they have been conducted on our part, have been greatly advanced by the close of this season, Lord Aberdeen hopes that you will be enabled to relieve the country from some part of the large expense with which those operations have hitherto been attended, by the discharge of a portion of the persons employed upon them, and especially of the Sappers of the Royal Engineers.

I am accordingly directed by the Earl of Aberdeen to convey to you full authority to make reductions in the establishment placed under your charge, whether in officers or men, to any extent which you may consider compatible with the efficient execution of the work which will still remain to be done in the course of the next season.

I am, &c.,
(Signed) H. U. ADDINGTON.

No. 17.

Lieutenant-Colonel Estcourt to the Earl of Aberdeen.—(Received December 30.)

My Lord,

Quebec, December 7, 1844.

I HAVE the honour to report to your Lordship the conclusion of the operations of the Commission for the season, and I have the greater satisfaction in doing so, because I am enabled to say that the Line of Boundary has been cut to the source of Hall's Stream.

Since the date of my despatch of May 8, the cutting of the long south-west line, which had been so successfully run by Captain Robinson and Lieutenant Pípon during March and April, had been in progress, and was far advanced, when the general works of the season recommenced, according to an agreement between Mr. Smith and myself, on the 1st of June.

I will, for the sake of clearness, divide my report under the different heads of Astronomy, Survey, and Cutting of Boundary.

1st. Astronomy.—Captain Robinson and Lieutenant Pípon went to the Valley of the St. John's the first week in June. They were directed to connect, astronomically, the point on the North-West Branch, with the parallel of latitude $46^{\circ} 25'$ on the South-West Branch.

This was done, and the Line traced between those points by the 21st of August. By the 31st of August the actual Boundary was cut; thus completing it from Lake Pohenagamook to the South-West Branch. The long south-west line was $64\frac{1}{2}$ miles, the south line $19\frac{1}{2}$ miles.

Upon being released from this work, the labourers were conducted by Mr. Wilkinson to the Kennebec Road, that they might be employed in cutting the Boundary in the high lands, an account of which shall presently be given. Mr. Wilkinson made his way through the woods, taking the line of the South-West Branch to the Metjarmette Portage, where he fell in with the surveying lines of Mr. Featherstonhaugh, and so brought his men, about 140, to the Kennebec Road.

I am not able, without making my report too long, to enter into the difficulties he encountered; but I must state, that the duty was performed with a good deal of judgment and intelligence.

Lieutenant Pípon having finished what was necessary on the South-West Branch, was directed to proceed to Quebec to establish himself near the citadel, and then, in conjunction with Captain Robinson, who remained on the North-West Branch, to connect that point of the Boundary with Quebec. They were to endeavour to do this by signal,—by flashes of

powder fired at some intermediate point, which might be seen from Quebec and from the North-West Branch, or near it.

A spot was found which answered the purpose. It was in the high lands overlooking the St. Lawrence, about twenty miles from the North-West Branch and forty from Quebec. By a simple contrivance, flashes of powder were fired, of one-sixth of a pound to each charge, from the top of a tree. They were distinctly seen from Quebec, and from the top of a hill near the North-West Branch, to which Captain Robinson removed his transit. In this way the whole survey in the Valley of the St. John has been connected, in the most satisfactory way, with the Valley of the St. Lawrence. Quebec is made the principal point of the survey, and that which will be done next year on the 45th parallel of latitude, will be referred to it. Whilst, in the mean time, the absolute position of Quebec, in reference to Greenwich, will be determined by the observations of Lieutenant Pipon during this winter.

2ndly. Survey.—The first week in June I repaired to the height of land on the Kennebec Road, the place appointed for meeting the American Commissioner.

Captain Broughton and Mr. Featherstonhaugh, with the fourteen Sappers who had lately arrived in the country, and between seventy and eighty labourers, repaired to the same place.

Upon arrival they were divided into two parties; one under Mr. Featherstonhaugh, to survey towards the source of the south-west branch of the St. John, and the other under Captain Broughton, to survey towards Hall's Stream.

The object of this survey was to ascertain the general run of the dividing ridge, to mark it at intervals of about half a mile, and so to afford correcting points for the cutting parties who might be employed on the actual Boundary.

The nature of the survey adopted was to cut a main line in the general direction of the dividing ridge, as near as that could be ascertained by an occasional view of the country from an eminence or tree: to run offsets from that line over the dividing ridge, to waters flowing in the opposite way: to level those offsets; to establish summits on them; and to trace and survey the streams on both sides of the ridge.

The main line was to enable the surveyor to bring his work into position, that he might lay it down as he proceeded. It was to serve also as a communication for the bringing in provisions, all of which were to be carried on men's backs. This labour was severe, and it was difficult to induce the men to continue it, through the discouragement of fatigue, bad or hot weather, and paths which soon became deep and muddy. Many men would undertake the work, perform one journey, become discouraged, and give it up.

Mr. Featherstonhaugh, having surveyed to the source of the South-West Branch, returned to the Kennebec Road, and proceeded by Captain Broughton's main line to take up fresh ground from Arnold's River westward.

At the conclusion of the season Captain Broughton had completed the survey from the Kennebec Road to Arnold's River, and Mr. Featherstonhaugh had surveyed, first, from the Kennebec Road to the source of the south-west branch of the St. John, and secondly, from Arnold's River to Hall's Stream.

The amount of work done by both of the officers is very great, and I believe it to be as accurate as the nature of the survey will admit. It is difficult to give a correct idea of what their labours were; but I will state shortly; that they had to cut a vast number of lines; to survey the course of the streams, and to unravel the difficulties and intricacies of the waters, whose perplexing course through the woods frequently confounded their expectations.

Neither of these officers had finished until the latter end of November, when the snow was already deep.

3rdly. Cutting of the Boundary.—The want of an appropriation by Congress rendered it impossible for the United States' Commissioner to

keep his engagement with me of taking the field on the 1st of June. For this he expressed his great regret. It was not until the 28th of July that he arrived at the height of land.

The season was now far spent, the best of it already gone, yet nothing done in the cutting of the Boundary along the high lands, which it had been agreed should be the portion of the American Commission.

Encouraged by your Lordship's despatch of the 3rd of July, I considered the means of saving what time remained, and of turning it to the best advantage. I thought we had a better chance of cutting the Line along the high lands than the American party had. During the winter I had established communications in the country to facilitate the hiring of capable men, and I had made calculations of what would always be required in provisions and equipments to render a party efficient in the woods.

In consequence, I proposed to the American Commissioner that we should take his work in the high lands this year, and that he should take our's on the parallel 45° next year; and so it was arranged that he should pursue his survey from the Kennebec Road, east and west, as we had already done; that he should cut the Line along the dividing ridge from the Kennebec Road to the south-west branch of the St. John, and that we should cut from the Kennebec Road to Hall's Stream.

If that were to be accomplished before the snows should hide from us the streams, by which alone we could be sure of keeping the dividing ridge, no time was to be lost. I could not expect to get the additional parties to work before the early part of September; nor could we depend upon being able to continue the work after the end of October. There would be, in fact, about six weeks clear for accomplishing the task. The distance to be cut, according to the existing maps, was over one hundred miles. Ten men can cut a quarter of a mile of Boundary in a day; but one-third of their number would be occupied in bringing in supplies for the rest; therefore the addition in labourers must, it was evident, be very great. The plan of fixing summits at intervals, by the survey, enabled me to put in a large body of axe-men. Parties could take up their grounds at the different summits; but to take charge of the cutting parties officers would be wanted upon whose intelligence in following the dividing ridge I could depend, and who would have personal activity sufficient to enable them to push their way through the woods, and to trace and blaze the actual Line for the guidance of the cutters, so fast as to keep them in full work.

Fortunately, I could look with confidence to Mr. Scott and Mr. Wilkinson for this. Also upon naming the matter to Mr. Featherstonhaugh, though I could not have proposed any additional labour to him, yet he at once undertook to cut as he surveyed, provided he was furnished with an increase to the number of his men.

The agreement for the new arrangement with Mr. Smith having been made on the 28th of July, I proceeded on the 29th to Quebec, where I ordered the additional provisions and equipments we should want, and directed the hiring of 150 men. Then I went to the north-west and south-west branches of the St. John, to see how the operations were going on there, and returned to the height of land by the 23rd of August. During my absence some doubt had occurred to Mr. Smith as to the propriety of leaving the cutting of the Line to the British Commission, until an American as well as a British surveyor had fixed summits of guidance. But the objection was overcome by our entering jointly into an engagement to consider the lines which both Mr. Smith and I should cut along the dividing ridge, as only exploratory lines, until found by a survey, to be made afterwards, to be satisfactory.

Early in August 150 men and some of the equipments had arrived at the height of land and were immediately employed in carrying out provisions in preparation for the cutting.

August 31st, Mr. Scott arrived from the Valley of the St. John, where he had been occupied from the beginning of the season. He at once took up ground about twenty miles from the Kennebec Road, and commenced cutting westward on the 5th of September with 100 men; the

rest were sent to reinforce Mr. Featherstonhaugh. The 100 men of Mr. Scott were afterwards increased to 140. With these at his heels, he traced the actual Boundary, from summit to summit, for about twenty miles; when, having overtaken the survey of Captain Broughton, he could look for no more correcting points, and must find his own way; still he persevered. By climbing trees to gain a view of the country, tracing the streams to find their sources, but all the time hardly pressed by the cutting parties behind him, he accomplished the work he had undertaken, by October 20; the distance being close on seventy miles. Mr. Wilkinson, on his arrival from the Valley of the St. John, began to cut at the Kennebec Road. He finished where Mr. Scott began. Mr. Scott finished where Mr. Featherstonhaugh began.

At the beginning of October I repaired to Newport, in the neighbourhood of Hall's Stream. By the middle of October a road was cut from thence to Mr. Featherstonhaugh's camp, which was found to be at that time near the source of the eastern head of the Connecticut. He had cut and surveyed over thirty miles of boundary. As I expected, he had nearly exhausted his provisions; but this road enabled him to supply himself without difficulty, by having cattle driven in to his camp, and therefore to continue his operations.

There was still a large portion of the Boundary to survey and to cut; the source of Hall's Stream was not yet discovered; the snow might be expected daily; and there seemed great danger of our being forced to give up before we reached Hall's Stream.

In order to muster all our strength at the last, Captain Broughton and Mr. Scott had been directed, after finishing what they were about, to come on westward; but not knowing the importance of the case, and being close run for provisions, Mr. Scott retired to the Kennebec Road.

Captain Broughton did not finish his survey until late in November, when between two and three feet of snow drove him also back to the Kennebec Road.

As soon as I learnt that Mr. Scott, upon whose men I chiefly depended, had returned by the Kennebec Road, I sent by express to direct the camping equipments and axes he had left there to be forwarded immediately through Quebec, and so round to Newport.

Fortunately, my letters met Mr. Scott at Quebec, just as he was about to discharge his men. With great promptitude he sent them all off to join me at Newport, and came there himself. Owing to the badness of the roads at the time, there was a delay in the arrival of the axes; but in a week after they had come, the remainder of the Line was surveyed and cut. This was on the 19th of November. The snow was deep; but fortunately we had got the Boundary marked before we were interrupted very much by that.

This was the conclusion of the operations for the season on the part of the British Commission. If in the course of my narrative I have occasionally mentioned the difficulties we have encountered, it has only been with a view of accounting for the number of men we have been compelled to employ, and for the large expenditure we have incurred.

Mr. Smith completed his share of the cutting, from the Kennebec Road to the Metjarmette Portage. Major Graham has observed at the point fixed by Lieutenant Pipon as latitude $46^{\circ} 25'$ on the South-West Branch; and I hear from him that he believes there will be hardly any appreciable difference between them.

I am informed also, that upon examination of the long south-west line, the American officer finds that it is straight. There is no question but that the same will be found to be the case with the south line.

In addition to the operations I have reported, I have to state that Mr. Wilkinson began the season with an examination of the north line from the source of the St. Croix to the intersection of the St. John where there were some iron monuments to put up. That should have been a joint operation with an American officer, but for the reasons I have already given, which delayed the arrival of the American Commission.

An American officer did however afterwards join Mr. Wilkinson. Having done all that was necessary on the north line, they placed the

monuments on the islands of the St. John to the mouth of the St. Francis. It was after that, that Mr. Wilkinson joined the parties on the upper St. John, and came over, as has been related, to the Kennebec Road.

I will now restate shortly the amount of Boundary cut by the Commission this year.

The south-west line	64½ miles.
South line	19½ "
The line along the highlands, from the Kennebec Road to Hall's Stream, about	140 "
Total	224 miles.

The interval from the Kennebec Road to the Metjarmette Portage having been completed by the American Commission, the whole Boundary may be said to be cut from the St. Croix to Hall's Stream.

During the winter the iron monuments will be hauled in along the line from Pohenagamook to Hall's Stream. The St. John's River will be surveyed from the source of the south-west branch to the mouth of the St. Francis, as also some of the rivers intersected by the south-west and south lines.

For the coming season the work to be done by the British Commission is as follows:—

1st. To determine astronomically the positions of the extremities of the old parallel of latitude 45°; also that of the Line at its intersection of river near Rouse's Point.

To refer these to Quebec, for which perhaps two intermediate stations will be required.

2dly. To survey and mark the south-west line, the south line, the line along the high lands, Hall's Stream, and the parallel 45°, as soon as that has been cut by the American Commission; therefore, though there is a good deal of survey to be done next year, as well as marking of the Boundary, it will not require many men. The whole of the cutting will fall on the American Commission.

I have, &c.,
(Signed) J. B. BUCKNALL ESTCOURT, Lt.-Col.

No. 18.

Lieutenant-Colonel Estcourt to the Earl of Aberdeen.—(Received December 30.)

My Lord,

Quebec, December 8, 1844.

IN obedience to your Lordship's instructions to reduce, as far as practicable, the number of Sappers employed by the Commission, nine have set off to return to England under charge of Captain Broughton.

The navigation having closed before they could be spared, they set off on the 4th instant by way of the Kennebec Road to Portland, in the State of Maine, so to Boston and New York, where they will embark in a liner for London. Captain Broughton has been directed to report himself upon arrival to your Lordship.

One more Sapper will be reduced; but as he wishes to be discharged from the service, and to settle in this country, I have detained him, and have applied to the General commanding here on the subject.

I have, &c.,
(Signed) J. B. BUCKNALL ESTCOURT, Lt.-Col.

No. 19.

The Earl of Aberdeen to Lieutenant-Colonel Estcourt.

Sir,

Foreign Office, January 3, 1845.

I HAVE read with much interest your despatch of the 7th ultimo, in which you report the proceedings of the Boundary Commission since the date of your despatch of the 8th of May last.

I can scarcely bestow too much praise on the energy and resolution with which the work has been conducted and executed by yourself and all the officers and men serving under you, and I have much pleasure in conveying to you, and directing you to express to all those under your orders, the high approbation of Her Majesty's Government.

The expense attending the Commission during the two years since the commencement of its operations, and especially this last year, has certainly been very great, indeed much greater than Her Majesty's Government had anticipated; but as it may fairly be assumed that the work of several years has been done in two, and that the extraordinary vigour displayed during the past season will have enabled you to dispense with the greater part of the numerous workmen employed in cutting the lines, and thereby to save a great proportion of the expense in future, I am not disposed to remark further on the amount of the expenditure already incurred.

I doubt not that by the next packet I shall receive from you such an account of the manner in which the sums drawn by you have been applied, as to exhibit to Her Majesty's Government clearly, and in detail, the sources of the very large expenditure which has occurred during the last season.

I collect from your despatch that the British part of the Commission having, with a view to the acceleration of the joint work, undertaken and executed alone the cutting of the whole of the Line along the dividing ridge of the Highlands, from the source of the Metjarmette to that of Hall's Stream, of which arrangement I entirely approve, is henceforward to be exempted from all further labour of the same description, and that the Americans, subject of course to British supervision, are to be charged with the rest of the cutting along the 45th parallel of latitude, as laid down in the Treaty, from the Connecticut to the St. Lawrence.

This being the case, it appears to me that it might be found possible, without detriment to the due progress of our part of the work, to reduce to a great extent the force of our officers and men, beyond the ten Sappers already discharged. If such reduction could be properly effected, I need not say that it would entirely fall in with the wishes of Her Majesty's Government. The astronomers must however clearly be retained.

You will give your attention to this point, which I leave with confidence in your hands, being satisfied that the same zeal for the public service which has guided you in directing and executing the work already performed, will induce you to apply your exertions to regulate and economize the expense of that which still remains to be done.

The activity you have shown, and the progress already made, lead me to entertain a sanguine hope that the whole will be completed at a very early period.

I am, &c.,
(Signed) ABERDEEN.

No. 20.

Lieutenant-Colonel Estcourt to the Earl of Aberdeen.— (Received March 27.)

My Lord,

Quebec, February 25, 1845.

WITH reference to that part of your Lordship's despatch of 3rd January, in which you express a hope that it may be found possible to reduce the force of the officers and men employed in the Boundary Commission beyond the ten Sappers already discharged, and direct me to give my attention to that specific point, as well as to the diminution in general of the expenses of the Commission, I beg leave to assure your Lordship that your wishes shall receive my constant and anxious attention. As, however, the Line along Hall's Stream, and the whole length of the 45th parallel of latitude from Hall's Stream to the St. Lawrence, remain yet to be surveyed, and the Boundary monuments are still to be placed along the whole line from Lake Pohenagamock, I doubt whether it would yet be consistent with prudent economy to reduce very materially the strength of our surveyors and their assistants; but I trust that the work yet to be done may proceed so rapidly as to enable me to carry out your Lordship's wishes in this respect within a brief period.

My proposed plan of operations for the opening season is as follows:

As soon as the weather permits Mr. Wilkinson will repair to Lake Pohenagamock, whence he will pass along the south-west and the south lines, up the South-West Branch, and thence along the Highlands surveying and erecting the Boundary monuments, in which operation Mr. Scott will assist him. After this Mr. Wilkinson will be employed in surveying a part of the 45th, and in laying down the different surveys.

Mr. Featherstonhaugh will be directed to survey Hall's Stream and the Line along the old parallel of latitude 45°.

What time these operations may occupy I cannot exactly calculate; but it will be my anxious desire, in conformity with your Lordship's wishes, to relieve the public from the expense attending the continued employment of Mr. Featherstonhaugh at as early a moment as his valuable services may prudently be dispensed with.

Were Captain Broughton on the spot, I might have employed him usefully in conjunction with Mr. Featherstonhaugh on the 45th parallel, but as he is in England I do not think it at all necessary that he should re-cross the Atlantic for that object. I consider, therefore, that his assistance will be no longer required. As the work proceeds, I propose, in proportion as the services of the officers and men cease to be necessary, to discharge them, and to send them to England.

I have already explained to your Lordship that the heavy cutting which fell almost exclusively on us last season having been completed to Hall's Stream, and the cutting which remains to be done having been undertaken by the Americans, our expenses will henceforward be restricted to the surveying and placing the monuments in conjunction with the Americans.

Permit me here to express, for my companions as well as for myself, our deep acknowledgments for the gratifying terms in which your Lordship has been pleased to communicate the approval of Her Majesty's Government in the exertions of the Commission last season. That portion of your Lordship's despatch which related to this subject I had the satisfaction to make known to the officers and men employed by the Commission, in obedience to the directions of your Lordship; and I am very sure that all have esteemed the marked approbation expressed by your Lordship, as a great reward for what they have done, and as an incitement to further exertion.

I have, &c.,
(Signed) J. B. BUCKNALL ESTCOURT, Lt.-Col.

No. 21.

The Earl of Aberdeen to Lieutenant-Colonel Estcourt.

Sir,

Foreign Office, April 3, 1845.

I HAVE received your despatch of the 25th February, in which, with reference to my despatch of the 3rd of January, you inform me that you can dispense with the further services of Captain Broughton; and that, although you consider the assistance of Mr. Featherstonhaugh in continuing the survey of the Boundary Line to be still necessary, you propose to relieve the public from the expense of his continued employment under the Commission at as early a moment as a due regard for the good of the service will admit.

You further state that you propose, in proportion as the labours of the officers and men under your orders shall be no longer required, to discharge them and send them to England.

I entirely concur in these views, and approve your intentions; and I feel it to be unnecessary for me any further to urge the observance of as strict an economy in the conduct of your operations as may be compatible with the efficient performance of the service intrusted to you.

I have notified to Captain Broughton that he will not be required to return to America; and that his duties and pay under this department will have ceased on the 31st of March.

You will understand that, in case no appropriation, or an insufficient appropriation, should have been made by Congress for the prosecution of the Boundary proceedings on the part of the United States' Commission, you are to continue alone the surveying and marking out of the Boundary Line without intermission, in the same manner as you were instructed to do last year.

I am, &c.,
(Signed) ABERDEEN.

No. 22.

The Earl of Aberdeen to Lieutenant-Colonel Estcourt.

Sir,

Foreign Office, April 18, 1845.

I HAVE recently received a despatch from Mr. Pakenham communicating to me a correspondence which, in consequence of a letter from you containing highly useful suggestions for the conduct of the remaining Boundary operations, he had held with the United States' Government relative to those matters.

Her Majesty's Government entirely approve your having spontaneously taken a step so well calculated to accelerate the termination of the labours of the Boundary Commission, which they much desire to bring to a close at the earliest practicable period.

I am, &c.,
(Signed) ABERDEEN.

No. 23.

The Earl of Aberdeen to Lieutenant-Colonel Estcourt.

Sir,

Foreign Office, May 19, 1845.

THERE appears to be some reason to doubt whether, considering the quantity of work which the American portion of the Boundary Commission will still have to execute on the line of the 45th parallel of north latitude, as laid down in the Treaty of Washington, the appropriation of 75,000 dollars made by Congress in their last session, for continuing the Boundary operations, will suffice for enabling the United States' Commission to bring those operations to a close during the present season.

Her Majesty's Government are, however, most anxious to complete the Boundary proceedings, and to dissolve the Commission before the expiration of the current year.

In case, therefore, you should, in process of time, have good reason to suppose that the funds voted by Congress will be found insufficient for their intended object, I should not object to your proposing to your American colleague to take upon yourself a given portion of the cutting or other work, which would properly fall to the Americans, on a written engagement being entered into with you by Mr. Albert Smith, that the sums thus expended by you in executing that part of the work should be considered reimbursable to Great Britain, and that they should be submitted to the United States' Government as such by Mr. Smith.

Should this mode appear to you, on due consideration, in any way objectionable or insufficient; or should any other scheme for accomplishing the same end strike you as preferable, so great a value do Her Majesty's Government attach to the completion of the whole of the Boundary work before the termination of the present year, that they are willing to leave in your hands a full discretion, and I hereby grant to you a full discretion to adopt whatever other mode of attaining the great object in view may appear to you to be best, whether by advancing a moderate sum on promissory bonds to be given to you by Mr. Smith, he undertaking the work, or by any other method by which security of reimbursement may be attained.

I am, &c.,
(Signed) ABERDEEN.

No. 24.

Lieutenant-Colonel Estcourt to Mr. Addington.—(Received July 30.)

(Extract.)

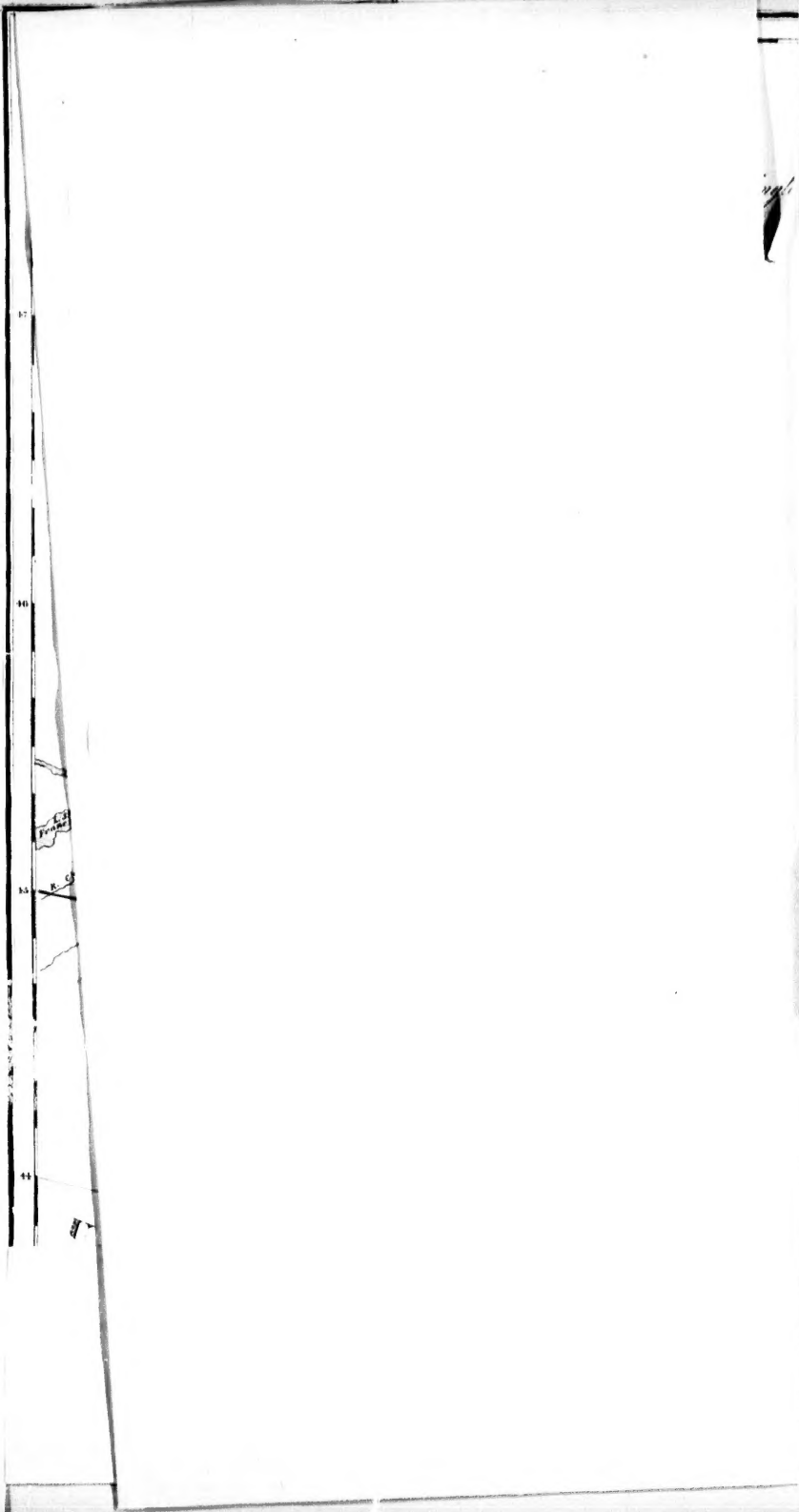
St. John's, July 9, 1845.

YOU will be glad to hear, and so still more will Lord Aberdeen, that the whole cutting of the Line will be finished to-morrow, 10th July. There remains therefore to finish now the survey and the erecting the iron posts.

Mr. Wilkinson is about the Metjarmette Portage, surveying the High Lands. He has just come up from the Valley of the St. John, where everything is done.

Mr. Scott has finished the erecting of the monuments from the Metjarmette to Arnold's River. Mr. Wilkinson will survey that. Two American parties are in the High Lands, surveying and erecting monuments west of Arnold's River. Hall's Stream has been surveyed and marked. The survey is going on on the 45th.

Captain Robinson removes from Montreal to Lake Memphramagog this week. Lieutenant Pipon from S. Regis about the end of next week. Major Graham is at Rouse's Point. The Americans have a surveying party on the 45th; just now they are about Missisqui Bay. Mr. Featherstonhaugh is near Stanstead also surveying the 45th. We have another surveying party just now attached to Lieutenant Pipon, in addition to his astronomy, in the neighbourhood of S. Regis; but I mean to send Mr. Scott to take charge of it, he being now released from the High Lands. Two months more work of one sort or another in the field remains to be done.



M A P
 TO ILLUSTRATE
The Boundary line established by the Treaty of Washington
OF THE 22ND OF AUGUST 1842
Between Her Majestys Colonies of
NEW BRUNSWICK AND CANADA
 — AND THE —
UNITED STATES OF AMERICA

Boundary by Treaty of 1842

